

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An isolated polynucleotide that encodes ~~a human β 1A sodium channel subunit protein, said polynucleotide comprising a sequence selected from a group consisting of:~~
 - (a) ~~a polynucleotide encoding SEQ ID NO:14; or~~
 - (b) ~~a polynucleotide encoding a polypeptide comprising amino acids 150 to 268 of SEQ ID NO:14.~~
2. (Original) The polynucleotide of claim 1 wherein the polynucleotide is RNA.
3. (Original) The polynucleotide of claim 1 wherein the polynucleotide is DNA.
4. (Previously Presented) The polynucleotide of claim 1 having a nucleotide sequence selected from the group consisting of SEQ ID NO:12 and SEQ ID NO:13.
5. (Canceled)
6. (Previously Presented) The polynucleotide of claim 1, wherein said polynucleotide is genomic DNA.
7. (Currently Amended) An expression vector ~~for expression of a human β 1A sodium channel subunit protein in a recombinant host, wherein said vector contains~~ containing a recombinant polynucleotide encoding SEQ ID NO:14.

8. (Currently Amended) The expression vector of claim 7,
~~wherein the expression vector contains a polynucleotide~~
~~encoding a human β 1A sodium channel subunit protein and having~~
a nucleotide sequence selected from the group consisting of
SEQ ID NO:12, and SEQ ID NO:13, ~~allelic variants of SEQ ID~~
~~NOs:12 or 13, and functional derivatives of SEQ ID NOs:12 or~~
13.

9. (Canceled)

10. (Currently Amended) The expression vector of claim 7,
wherein the expression vector contains genomic DNA encoding a
~~human β 1A sodium channel subunit protein of~~ SEQ ID NO:14.

11. (Currently Amended) A host cell containing a recombinant
polynucleotide encoding a ~~human β 1A sodium channel subunit~~
~~protein of~~ SEQ ID NO:14 ~~or a functional derivative thereof.~~

12. (Previously Presented) The host cell of claim 11,
wherein said polynucleotide has a nucleotide sequence selected
from the group consisting of SEQ ID NO:12, and SEQ ID NO:13.

13. (Previously Presented) The host cell of claim 11,
wherein said polynucleotide is genomic DNA.

14-16. (Canceled)

17. (Currently Amended) A process for expressing a ~~human β 1A~~
~~sodium channel subunit~~ protein in a host cell, comprising:

(a) ~~introducing an expression vector encoding a human~~
~~β1A sodium channel subunit protein,~~ into a cell, wherein the
vector comprises a ~~nucleic acid sequence capable of~~
~~hybridizing to a nucleotide sequence having the sequence of~~
~~SEQ ID NO:12 or SEQ ID NO:13~~polynucleotide encoding SEQ ID
NO:14, or ~~it's complementary sequence~~ a polynucleotide whose
sequence is complementary thereto, ~~wherein the hybridization~~
~~conditions comprise incubation in 50% formamide, 6X SSC, 1%~~
~~SDS at 42 C for 12-19 hours, washing in at least two~~
~~successive washes at 22 C, followed by stringent washes at 65~~
~~C in a buffer of 0.04M sodium phosphate, pH 7.2, 1% SDS and~~
~~1mM EDTA;~~

(b) culturing the cell of step (a) under conditions which
allow expression of a protein encoded by the expression
vector, or by the complement thereto.

18 - 34. (Canceled)